

	Ariel.	Umbriel.	Titania.	Oberon.
1870.	°	°	°	°
12	243	325	127	294
13	107	229	80	263
14	325	151	33	232
15	176	56	357	204
16	29	336	321	181
17	250	243	277	159
18	114	162	229	135
19	330	71	189	106
20	181	347	154	75
21	35	257	114	44
22	256	172	65	18
23	120	86	22	355
24	335	357	346	333
25	186	274	310	308
26	41	182	263	278
27	264	101	216	246
28	126	8	179	216
29	340	288	144	192
30	191	193	100	169
31	47	115	51	146
Apr. 1	271	19	11	120
2	132	302	336	90
3	345	205	297	58
4	196	128	249	29
5	53	31	204	5
6	278	314	169	343
7	137	217	132	320
8	350	141	86	293

The Apparent Distances vary between the Limits

Ariel	15"	and	12"
Umbriel	21		16
Titania	35		27
Oberon	46		36

*The Zodiacal Light.* By Capt. Noble.

On the evening of March 3rd, from 7<sup>h</sup> 40<sup>m</sup> to 8<sup>h</sup>, L.M.T., this phenomenon was much brighter and more conspicuous than I have ever seen it before, surpassing in vividness that part of the Milky Way running through *Cepheus* and *Cygnus*, which was, of course, favourably situated for comparison. It is stated in most of the popular books on Astronomy, that the axis of the

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Zodiacal Light nearly coincides with the ecliptic; but, on the occasion to which I refer, it certainly trended considerably to the right of it (as viewed with the naked eye). The boundaries of the light were not well defined. It involved  $\alpha$ ,  $\beta$ , and  $\gamma$  *Arietis*, and extended a little way upwards towards *Andromeda*. The *Pleiades* were markedly to the left of it, and separated from it by an unmistakable gap of dark sky. Allowing for the difficulty of estimating accurately the axis of a figure, which requires averted vision to reduce to anything like shape; and speaking roughly, I should say that such axis was inclined some  $20^\circ$  to the ecliptic, according to the best estimation that I could form.

Forest Lodge, Maresfield, Sussex,  
March 10th, 1870.

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*Occultation of a Star by the Moon.* By Capt. Noble.

Thursday, February 10th, 1870, *m Tauri* disappeared instantaneously at the Moon's dark limb at  $6^h 33^m 30^s.2$ , L.S.T. =  $9^h 10^m 33^s.1$ , L.M.T. and reappeared at the bright limb somewhere about  $7^h 12^m 45^s$ , L.S.T. =  $9^h 49^m 41^s.5$ , L.M.T. This was an unsatisfactory observation, as no determination was made of the errors of adjustment of the Transit when the time was taken; and, in addition, the reappearance was badly seen, the star being clear of the Moon's limb when first glimpsed. Power, 255, adjusted on the star.

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*Observations of Venus near her inferior Conjunction.*  
By Capt. Noble.

The day on which the Planet was actually in inferior conjunction was densely cloudy here; but on the previous one, Tuesday, February 22nd, I observed her at  $2^h 10^m$ , L.M.T. when she was within  $24^h 14^m$  of such conjunction. She presented the appearance of an exquisitely delicate thread of light, the line joining the cusps being a chord less than a diameter: in other words, the hair-like luminous line did not extend round a semi-circle. A defect in the driving-clock of my Equatoreal precluded me from making any micrometrical measurements, however, and this must be my excuse for speaking thus vaguely. Constricting the field of view of a Huyghenian eye-piece magnifying 154 times by means of a card diaphragm pierced with a central needle line, I could see, plainly enough, the dark body of the planet. The sky was somewhat hazy, and I could not trace the dark limb quite round; but its difference of tint from that of the surrounding sky was evident the instant *Venus* was regarded. I employed powers of 74, 115, and 154. Vision was most satisfactory with the latter.